

IN THE CLAIMS:

Please replace the claims with the claims provided in the listing below wherein status, amendments, additions and cancellations are indicated.

1. (Currently amended) A heat exchanger comprising:

a core ~~[[4]]~~ in the aggregate of a multiplicity of juxtaposed flat tubes ~~[[3]]~~, with a heating fluid ~~[[1]]~~ flowing through one of the inside and the outside of the flat tubes ~~[[3]]~~, with a fluid to be heated ~~[[2]]~~ flowing through the other;

a pair of discoidal tube plates ~~[[5]]~~ including tube insertion apertures to which the flat tubes ~~[[3]]~~ are ~~jointed~~ joined at their respective opposed ends;

an inner cylinder ~~[[6]]~~ having a rectangular cross-section enclosing the outer periphery of the core ~~[[4]]~~ except the vicinities of the pair of tube plates ~~[[5]]~~;

a first baffle plate ~~[[7]]~~ having a circular periphery fitted to the outer periphery at one end of the inner cylinder ~~[[6]]~~, the first baffle plate ~~[[7]]~~ confronting one of the pair of tube plates ~~[[5]]~~;

a circular outer cylinder ~~[[10]]~~ having one end joined to the first baffle plate ~~[[7]]~~ and the other end joined to a second baffle plate ~~[[8]]~~ with a

circular periphery disposed on the outer periphery at the other end of the inner cylinder [(6)] or to the other of the pair of tube plates [(5)], the outer cylinder [(10)] including on its outer periphery a corrugated portion that is thermally expandable in the axial direction; and

an outlet [(11)] and an inlet [(12)] for the fluid to be heated [(2)] or the heating fluid [(1)] disposed at the both end portions of the core [(4)] between the opposed ends of the inner cylinder [(6)] and the pair of tube plates [(5)], wherein

a lead-in port [(13)] and a lead-out port [(14)] for the heating fluid [(1)] or the fluid to be heated [(2)] are connected respectively to the pair of tube plates [(5)].

2. (Currently amended) The heat exchanger of claim 1, wherein the second baffle plate [(8)] having the circular outer periphery is fitted at its rectangular inner periphery to the outer periphery at the other end of the inner cylinder [(6)] in such a manner as to be slightly displaceable in the axial direction of the inner cylinder [(6)] confronting the other of the pair of tube plates [(5)], wherein

the outer cylinder [(10)] is firmly connected at the other end thereof to the outer periphery of the second baffle plate [(8)], wherein

the first baffle plate [(7)] is fitted at its rectangular inner periphery to the outer periphery at one end of the inner cylinder [(6)] with the first baffle plate [(7)] being secured to the outer cylinder [(10)], and wherein

the heat exchanger further comprises a first [(15)] and a second [(16)] cylindrical tank bodies whose opposed ends are firmly connected respectively to the tube plates [(5)] and to the first [(7)] and the second [(8)] baffle plates confronting the tube plates [(5)].